

AMENDMENTS

In the Claims:

Please cancel claims 5 and 36 without prejudice, and amend claims 6, 8, 10, 15, 21, 23, 33, 35, 37 and 38 as follows:

D₁ 6. (Twice Amended) The method of claim 33, wherein said tissue specific ligand is an anticancer agent.

D₂ 8. (Twice Amended) The method of claim 33, wherein said tissue specific ligand is a tumor marker.

D₃ 10. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is a folate receptor targeting ligand.

D₄ 15. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is a tumor apoptotic cell targeting ligand or a tumor hypoxia targeting ligand.

D₅ 21. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is glutamate pentapeptide.

D₆ 23. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is an agent that mimics glucose.

D₇ 33. (Once Amended) A method of synthesizing a radiolabeled ethylenedicysteine derivative for imaging comprising the steps:

- a) obtaining a tissue specific ligand, wherein the tissue specific ligand is an anticancer agent, a tumor marker, a folate receptor targeting ligand, a tumor apoptotic cell targeting ligand, a tumor hypoxia targeting ligand, glutamate pentapeptide, or an agent that mimics glucose;

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- b) admixing said ligand with ethylenedicysteine (EC) to obtain an EC-tissue specific ligand derivative; and
 - c) admixing said EC-tissue specific ligand derivative with a radionuclide and a reducing agent to obtain a radionuclide labeled EC-tissue specific ligand derivative, wherein the EC forms an N_2S_2 chelate with the radionuclide.
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35. (Once Amended) A method for labeling a tissue specific ligand for imaging, comprising the steps:

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- a) obtaining a tissue specific ligand, wherein the tissue specific ligand is an anticancer agent, a tumor marker, a folate receptor targeting ligand, a tumor apoptotic cell targeting ligand, a tumor hypoxia targeting ligand, glutamate pentapeptide, or an agent that mimics glucose;
 - b) admixing the tissue specific ligand with ethylenedicysteine (EC) to obtain an EC-ligand drug conjugate; and
 - c) reacting the drug conjugate with ^{99m}Tc in the presence of a reducing agent to form an N_2S_2 chelate between the ethylenedicysteine (with or without linker) and the ^{99m}Tc .
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37. The method of claim 35, wherein the reducing agent is a dithionite ion, a stannous ion or a ferrous ion.

38. (Once Amended) A method of imaging a site within a mammalian body comprising the steps of administering an effective diagnostic amount of a composition comprising a ^{99m}Tc labeled ethylenedicysteine-tissue specific ligand conjugate and detecting a radioactive signal from the ^{99m}Tc localized at the site, wherein the tissue specific ligand is an anticancer agent, a tumor marker, a folate receptor targeting ligand, a tumor apoptotic cell targeting ligand, a tumor hypoxia targeting ligand, glutamate pentapeptide, or an agent that mimics glucose.
